# **Objective Template**



ld: **IMRT H&N 70/35** 

Status: Approved

Last Modified: June 06 2016 14:10:42:871

Diagnosis: With Gross Disease

Treatment Site:

Head and Neck with

Description: Gross Disease (70Gy in 35Fx) Includes OAR

constraints

# **Optimization Objectives**

#### **IMRT**

Default Smoothing X: 80
Default Minimize Dose: 0
Max Iterations: 1000

Default Fixed Jaws:

Use Colors:

Default Smoothing Y: 60
Default Optimization Type: Beamlet
Max Optimize Time [min]: 100

Interpolate:

## **Beam Angle Optimization**

Initial Field Distribution: Coplanar Minimum Number of Fields: 5
Maximum Number of Fields: 9
Maximum Elevation Angle for Non-Coplanar Fields: Maximum Collimator Variation: 0

Local Geometric Optimization Simplex

Mode:

#### **Normal Tissue Objective**

 
 Use:
 false

 Automatic:
 false

 Priority:
 150

 Distance From Target Border:
 1

 Start Dose:
 105

 End Dose:
 60

 Fall-off:
 0.05

#### **Arc Optimization**

Use MU Objective:

MU Objective Strength: 50
Minimum MU: 0
Maximum MU: 2000

Jaw Tracking:

#### **Structure Objectives**

Structure Objective: LPTV56

Volume Type: PTV Surface Only:

Resolution [mm]: 3.00

**Objectives** 

Group Туре Limit Volume [%] Total Dose [cGy] Priority Point upper 6650.0 100 0 Line 25.00 5600.0 70 1 upper Line 10.00 6650.0 50 1 upper 0 Point 100.00 5600.0 100 lower

Structure Objective: PTV70

Volume Type: PTV Surface Only:

Resolution [mm]: 3.00

**Objectives** 

Priority Limit Volume [%] Total Dose [cGy] Group Type Point upper 0 7000.0 100 0 Point 100.00 7000.0 100 0 lower

Structure Objective: RPTV56

Volume Type: PTV Surface Only:

Resolution [mm]: 3.00

**Objectives** 

Volume [%] Туре Limit Total Dose [cGy] Priority Group Point 0 6650.0 100 0 upper 70 25.00 5600.0 1 Line upper 70 1 Line upper 10.00 6650.0 0 Point lower 100.00 5600.0 100

Structure Objective: Chiasm

Volume Type: Organ Surface Only:

Resolution [mm]: 1.00

**Objectives** 

 Type
 Limit
 Volume [%]
 Total Dose [cGy]
 Priority
 Group

 Point
 upper
 0
 3000.0
 60
 0

Structure Objective: Lt Optic Nerve

Volume Type: Organ Surface Only:

Resolution [mm]: 1.00

**Objectives** 

Type Limit Volume [%] Total Dose [cGy] Priority Group

Point upper 0 5000.0 70 0

Structure Objective: Rt Optic Nerve

Volume Type: Organ Surface Only:

Resolution [mm]: 1.00

**Objectives** 

Type Limit Volume [%] Total Dose [cGy] Priority Group
Point upper 0 5000.0 70 0

**Structure Objective: LPTV63** 

Volume Type: PTV Surface Only:

Resolution [mm]: 1.00

**Objectives** 

Limit Volume [%] Priority Туре Total Dose [cGy] Group Point upper 0 6650.0 100 0 Line 25.00 6300.0 70 1 upper 10.00 6650.0 70 1 Line upper 0 Point lower 100.00 6300.0 100

Structure Objective: RPTV63

Volume Type: PTV Surface Only:

Resolution [mm]: 1.00

**Objectives** 

Limit Volume [%] Total Dose [cGy] Priority Group Туре Point upper 0 6650.0 100 0 25.00 6300.0 Line 70 1 upper Line 10.00 6650.0 70 1 upper 0 Point 100.00 6300.0 100 lower

**Structure Objective: PTV63** 

Volume Type: PTV Surface Only:

Resolution [mm]: 1.00

**Objectives** 

Туре Limit Volume [%] Total Dose [cGy] Priority Group Point upper 0 6650.0 100 0 Line upper 25.00 6300.0 70 1 Line upper 10.00 6650.0 70 1 Point lower 100.00 6300.0 100 0

Structure Objective: PTV56

Volume Type: PTV Surface Only:

Resolution [mm]: 1.00

#### **Objectives**

Type	Limit	Volume [%]	Total Dose [cGy]	Priority	Group
Point	upper	0	6650.0	100	0
Line	upper	25.00	5600.0	70	1
Line	upper	10.00	6650.0	70	1
Point	lower	100.00	5600.0	100	0

## Structure Objective: Spinal Canal

Volume Type: Surface Only:

Resolution [mm]: 0.00

**Objectives** 

 Type
 Limit
 Volume [%]
 Total Dose [cGy]
 Priority
 Group

 Point
 upper
 0
 3400.0
 90
 0

Structure Objective: Brain

Volume Type: Surface Only:

Resolution [mm]: 0.00

**Objectives** 

Structure Objective: PRV 5mm

Volume Type: Surface Only:

Resolution [mm]: 0.00

**Objectives** 

 Type
 Limit
 Volume [%]
 Total Dose [cGy]
 Priority
 Group

 Point
 upper
 0
 3600.0
 80
 0

Structure Objective: LEYE

Volume Type: Surface Only:

Resolution [mm]: 0.00

**Objectives** 

Structure Objective: REYE

Volume Type: Surface Only:

Resolution [mm]: 0.00

**Objectives** 

 Type
 Limit
 Volume [%]
 Total Dose [cGy]
 Priority
 Group

 Point
 upper
 0
 4500.0
 50
 0

Structure Objective: PRV 8mm

Volume Type: Surface Only:

Resolution [mm]: 0.00

**Objectives** 

Type Limit Volume [%] Total Dose [cGy] Priority Group
Point upper 0 3800.0 70 0

Structure Objective: LSUBMAND

Volume Type: Surface Only:

Resolution [mm]: 0.00

**Objectives** 

Туре Limit Volume [%] Total Dose [cGy] Priority Group Line 80.00 1000.0 50 1 upper 40.00 Line 2000.0 50 1 upper Line 20.00 3000.0 50 1 upper Line upper 10.00 4000.0 50 1

**Structure Objective: RSUBMAND** 

Volume Type: Surface Only:

Resolution [mm]: 0.00

**Objectives** 

Туре Limit Volume [%] Total Dose [cGy] Priority Group Line 80.00 1000.0 50 1 upper Line 40.00 2000.0 50 1 upper 20.00 Line 3000.0 50 1 upper Line upper 10.00 4000.0 50 1

Structure Objective: LARYNX

Volume Type: Surface Only:

Resolution [mm]: 0.00

**Objectives** 

 Type
 Limit
 Volume [%]
 Total Dose [cGy]
 Priority
 Group

 Point
 upper
 50.00
 3000.0
 50
 0

Structure Objective: optLPAROTID

Volume Type: Surface Only:

Resolution [mm]: 0.00

**Objectives** 

Туре	Limit	Volume [%]	Total Dose [cGy]	Priority	Group
Line	upper	80.00	1000.0	50	1
Line	upper	40.00	2000.0	50	1
Line	upper	20.00	3000.0	50	1
Line	upper	10.00	4000.0	50	1

## Structure Objective: optRPAROTID

Volume Type: Surface Only:

Resolution [mm]: 0.00

## **Objectives**

Type	Limit	Volume [%]	Total Dose [cGy]	Priority	Group
Line	upper	80.00	1000.0	50	1
Line	upper	40.00	2000.0	50	1
Line	upper	20.00	3000.0	50	1
Line	upper	10.00	4000.0	50	1

## Structure Objective: BRSTEM

Volume Type: Surface Only:

Resolution [mm]: 0.00

## **Objectives**